COPHES GUIDELINES TO MEASURE EXPOSURE OF CHILDREN AND THEIR MOTHERS: SELECTION OF PARTICIPANTS, RECRUITMENT AND FIELD WORK IN DEMOCOPHES

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Background and Aims: In support of the European Environment and Health Action Plan, European scientists have started to define, organize and manage a coherent human biomonitoring (HBM) approach. COPHES (Consortium to Perform HBM on a European Scale) provides the scientific and conceptual background. DEMOCOPHES, the respective pilot study, will work on the hypothesis that HBM can be performed in a coherent and harmonized way throughout Europe.
Methods: Commonly developed protocols, strategies and scientific tools serve as the basis to measure exposure of 120 mother and child pairs to mercury, cadmium, cotinine and phthalates in 17 participating countries. To develop a common protocol for recruitment and fieldwork was a challenging task. Selecting participants from inhabitant registries is the optimum strategy, but due to country-specific restrictions a second option, the selection of participants via schools, is offered. Participants are chosen from two sampling locations: one area with low and another with a high degree of urbanization. A written consent, questionnaires, a protocol sheet, urine and hair samples and individual letters of the results for the participating families are the common fundamental fieldwork instruments.
Results: The essential elements for quality control of field work were identified and will be applied according to the developed SOPs: fieldwork manuals are being prepared, interviewers will be trained and check-lists for internal and external quality control will be used.
Conclusions: On the basis of a well reasoned fieldwork concept and SOPs for all steps of the study including chemical analyses and statistical data treatment, evaluation of DEMOCOPHES will help COPHES to establish harmonized procedures for HBM in Europe. HBM can support policy in a multitude of ways, inter alia, as a tool to support REACh, to identify exposed subgroups and to help evaluate policy actions for exposure reduction.

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